

### **REMARKS**

Reconsideration of this application, as amended, is requested. Claims 1-18 remain in the application. Claim 1 has been amended to define the invention more clearly. Claim 3 has been amended to address a rejection under 35 USC 112, second paragraph. Claims 4, 6, 9 and 17 have been amended into independent form.

The Examiner objected to the title of the invention as being insufficiently descriptive. Accordingly, a new or amended title was required that would describe the invention more clearly.

The title of the invention has been amended in accordance with the request of the Examiner.

Claim 3 was rejected under 35 USC 112, second paragraph. The Examiner noted language in claim 3 that did not parallel the corresponding language used in claim 2. Accordingly, the Examiner required correction.

Claim 3 has been amended to ensure consistent use of terminology throughout the claims.

Claims 1, 2, 3 and 5 were rejected under 35 USC 102(b) as being anticipated by published U.S. Patent Application Publ. No. 2003/006388 to Sahlin et al. The Examiner specifically referred to FIG. 6 of the Sahlin et al. reference and concluded that an optical fiber measuring module was provided. The office action stated that the module is to be laid on a structure for measuring at least one physical quantity from the distortion and temperature of the structure. The module was considered to have a cable 130. The Examiner noted that Sahlin et al. does not explicitly state a covering layer and cladding. However, these elements were considered by the Examiner to be inherent to a fiber cable

because the light reflects based on the relationship between the core, the cladding and the covering layer. The Examiner then concluded that the Sahlin et al. reference discloses a base member 118 for holding the optical fiber cable and an attachment member 112 for attaching the base member to the structure.

The Sahlin et al. reference is directed to an assembly for holding a large core plastic side-light optical fiber that can be used for decorative or functional lighting. More particularly, light can be directed into an end of the large core side-light optical fiber and is emitted transversely therefrom. Thus, the assembly of the Sahlin et al. reference can be used to replace conventional lighting systems, such as fluorescent lights. In contrast, the invention defined by amended claim 1 is directed to an "optical fiber measuring module to be laid on a structure for measuring at least one physical quantity." It is not at all clear why a skilled artisan working in the field of optical fiber measuring modules for measuring physical quantities of a structure would turn to a device directed to an assembly for a large core side lighting optical fiber that could be used in place of decorative or functional lighting. Counsel understands that the above-quoted portion of amended claim 1 is in the preamble of claim 1. However, it is well established that language appearing in a preamble of a claim can be very useful for defining what has been invented and for distinguishing the invention from prior art. In this regard, the Examiner's attention is directed with respect to *Corning Glassworks v. Sumitomo Electric*, 9 USPQ2d 1962 (Fed. Cir. 1989). There the inventions related to an optical wave guide fiber. The claim at issue began with the preamble "An optical wave guide, comprising". The claim then proceeded to define a cladding layer and a core. Validity of the claim asserted in that case was challenged based on a reference that showed a cladding layer and a core that met the

limitations of the claim. However, the patent owner asserted that the preamble phrase "an optical wave guide" must be considered a structural limitation of the claim. The patent owner noted that the term "optical wave guide" was defined very clearly in the specification. Additionally, the patent owner argued that the structure disclosed in the reference was not an optical wave guide and could not function as an optical wave guide. The court held that the preamble did not merely state a purpose or intended use for the claimed structure. Rather, the court concluded that the words in the preamble gave life and meaning to the claimed invention. Accordingly, the court held that the claims were not anticipated by the reference even though the reference had the cladding layer and the core that followed the simple preamble "An optical wave guide". Other courts, similarly, have held that the preamble can be very useful for defining what has been invented.

In this application, it is submitted that the structural limitations following the preamble are patentably distinct from Sahlin et al. for the reasons set forth below. However, it is also submitted that the large core side-light optical fiber assembly of Sahlin et al. cannot anticipate the claimed "optical fiber measuring module to be laid on a structure for measuring at least one physical quantity." The optical fiber technology area of the subject invention is relevant to the optical fiber technology area considered by the Federal Circuit in the above-quoted *Corning Glassworks v. Sumitomo Electric* case. Additionally, as in the above-cited *Corning Glassworks v. Sumitomo Electric* case, the language appearing in the preamble is very clearly defined in the specification. For these reasons, it is submitted that amended claim 1 and its dependent claims cannot be anticipated by the Sahlin et al. reference.

The issues here go well beyond the preamble. More particularly, the Sahlin et al. reference clearly is directed to a structure where the optical light fiber must be mounted in the support member 102 after the support member 102 has been mounted on the mounting member. In this regard, paragraph 0028 of Sahlin et al. explains that the walls 114 and 116 are pressed toward one another to flex the flexure region 118 so that the feet 104 and 106 will move further apart. When the feet 104 and 106 are moved farther apart, they may be snapped over mounting member 112 and into recesses 120 and 122 on the sides of mounting member 112. Paragraph 0029 then explains that "after channel 100 has been attached to mounting member 112, a light fiber 130 is inserted into the channel where it snaps into place." Arguably, a person could snap the light fiber into the channel before mounting the channel onto the mounting member 112. However, the design of Sahlin et al. then would prevent the channel from being mounted on the mounting member 112 because the light fiber 130 would prevent the walls 114, 116 from being pressed towards one another. In contrast, amended claim 1 defines "an optical fiber cable, a base member for holding the optical fiber cable and an attachment member for attaching the base member to the structure" on which the measuring module is to be laid for measuring at least one physical quantity. Claim 1 further defines the base member as being configured for being attached to the attachment member while the base member is holding the optical fiber cable. The specification explains at many locations why this configuration is important. For example, paragraph 0031 of the subject application explains that the claimed configuration enables the module to be attached to the structure without influencing the optical fiber cable which requires a careful attention. Paragraph 0036 explains that the attachment member can be attached to the structure without

considering the optical fiber cable. Paragraph 0038 explains that "the base member 3 can be handled upon handling the optical fiber measuring module and the optical fiber cable 2 requiring a careful attention need not be directly handled." Similar explanations exist elsewhere in the specification. Accordingly, it is submitted that the invention defined by amended claim 1 and its dependent claims is not taught or suggested by Sahlin et al.

Claim 1 also was rejected under 35 USC 102(b) as being anticipated by U.S. Patent No. 5,594,819 to Narendran et al. The Examiner specifically referred to FIG. 2C as disclosing an optical fiber measuring module to be laid on a structure for measuring at least one physical quantity from the distortion and temperature of the structure. The Examiner noted that the device of Narendran et al. has an optical fiber cable 40 including a core, a cladding and a covering layer. The Examiner further stated that Narendran et al. discloses a base member 44 for holding the optical fiber cable and an attachment member 48 for attaching the base member to a structure. It is submitted, with respect, that the Examiner has misinterpreted the Narendran et al. disclosure, and the element 44 of Narendran et al. cannot be compared to the claimed "base member for holding the optical fiber cable." In this regard, the paragraph beginning at col. 5, line 17 of Narendran et al. explains that the device has a fiber optic portion 40 whose exterior is covered with a metallization layer 42. The Narendran et al. reference then proceeds to explain that to "improve ruggedness of the sensor, a portion of the fiber optic may include a metal sheet or tube 44, as well as an over layer of protective armored cable 46 or the like. Thus, the sheath 44 is part of the optical fiber and is not a member corresponding to the base member for holding the optical fiber cable. It is submitted that Narendran et al. does not teach or suggest an optical fiber measuring module comprising an optical fiber cable, a

base member for holding the optical fiber cable and an attachment member for attaching the base member to the structure on which the measuring module is laid, and with the base member being configured for attachment to the attachment member while the base member is holding the optical fiber cable.

Claims 7, 8, 10 and 11 were rejected under 35 USC 103(a) as being obvious over Narendran et al. considered in view of U.S. Patent No. 6,559,437 to Pope, Jr. et al. The Pope, Jr. et al. reference does not overcome the deficiencies of Narendran et al. when applied to claim 1.

Claims 12 and 13 were rejected under 35 USC 103(a) as being obvious over Narendran et al. considered in view of U.S. Patent No. 4,795,231 to Tanabe. Once again, the Tanabe reference does not overcome the deficiencies as explained above. Claim 14 was rejected under 35 USC 103(a) as being obvious over Narendran et al. considered in view of Hazan et al. and Pope, Jr. et al. Once again, the secondary references do not overcome the deficiencies of Narendran et al. as explained above.

Claim 15 was rejected under 35 USC 103(a) as being obvious over Narendran et al. considered in view of Sugai et al. Again, it is submitted that the Sugai et al. reference does not overcome the deficiencies of Narendran et al.

Claim 16 was rejected under 35 USC 103(a) as being obvious over Narendran et al. considered in view of Atoji et al. Once more, it is submitted that the secondary reference does not overcome the deficiencies of Narendran et al. as explained above.

The applicants are pleased to note that dependent claims 4, 6, 9, 17 and 18 were identified as being directed to patentable subject matter. The Examiner indicated

that these claims would be allowed if amended or rewritten into independent form, with all of the limitations of the base claim and any intervening claims.

Allowable dependent claim 4 had depended from claim 2 which in turn depended from claim 1. Claim 4 has been rewritten as an independent claim with all of the limitations of original claims 1 and 2. Accordingly, it is submitted that amended claim 4 is in condition for allowance.

Allowable claim 6 had depended from claim 5 which in turn depended from claim 2 and then from claim 1. Claim 6 has been rewritten as an independent claim with all of the limitations of original claims 1, 2 and 5. Hence, amended claim 6 is believed to be in condition for allowance.

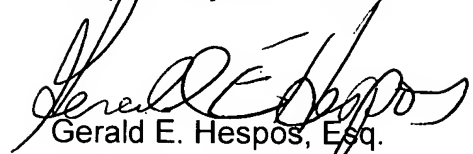
Allowable claim 9 had depended directly from claim 1. Claim 9 has been rewritten as an independent claim with all of the limitations of claim 1. Hence, claim 9 is believed to be in condition for allowance.

Allowable claim 17 had depended from claim 16 which, in turn, depended directly from independent claim 1. Claim 17 has been rewritten as an independent claim with all of the limitations of original claims 1 and 16. Hence, amended claim 17 is believed to be in condition for allowance. Claim 18 depends from claim 17 and should be allowed as well.

In view of the preceding amendments and remarks, it is respectfully submitted that the claims remaining in the application are directed to patentable subject matter. As a result, allowance of all of the claims remaining in the application is solicited. The Examiner is urged to contact applicants attorney at the number below to expedite the

prosecution of this application.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Gerald E. Hespos", written over the printed name.

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